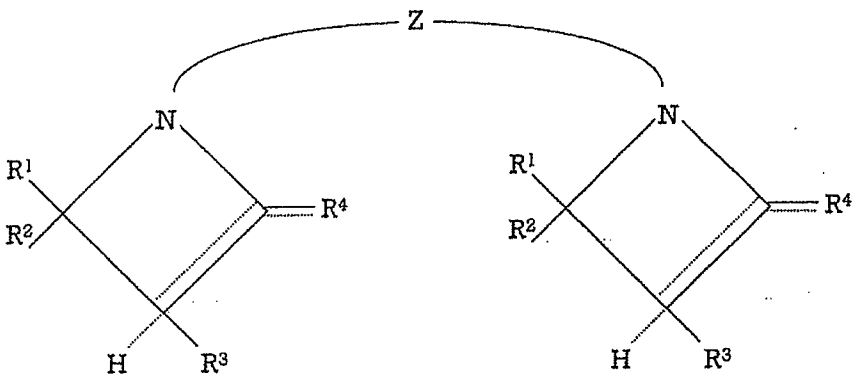
Claims

1. An azetidine derivative of the general formula (I)



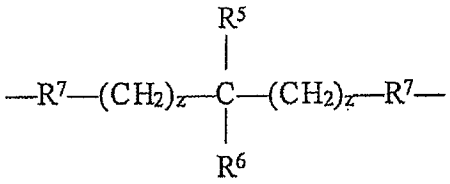
(I)

where

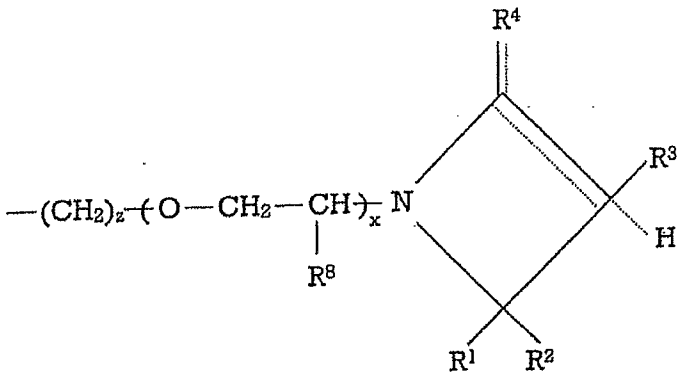
R^1, R^2 and R^3 independently of one another are H, C_1-C_{20} alkyl, C_3-C_8 cycloalkyl, C_6-C_{10} aryl or alkylaryl with C_1-C_4 alkyl and C_6-C_{10} aryl groups

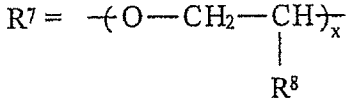
R^4 = H, C_1-C_6 alkyl(idene)

Z = C_2-C_{25} alkylidene, C_5-C_{25} cycloalkylidene, C_6-C_{24} arylene and also



R^5 and R^6 = H, CH_2OH, C_1-C_4 alkyl, C_6H_5,



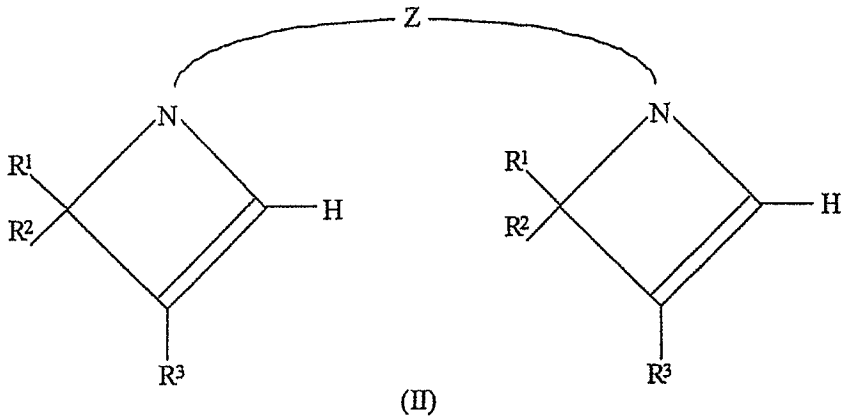


R^8 = H, CH_3, C_2H_5, C_6H_5

z = 0 or 1

x = 0 to 100.

2. An azetidine derivative of claim 1 of the general formula (II)

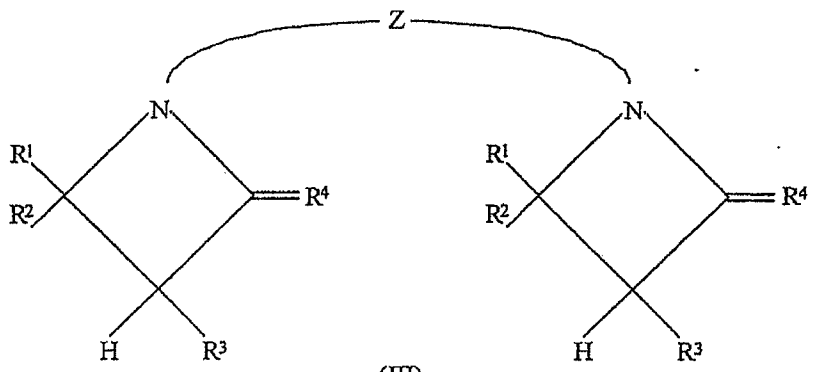


(II)

where

R^1, R^2, R^3 and Z possess the definition specified in claim 1.

3. An azetidine derivative of claim 1 of the general formula (III)



(III)

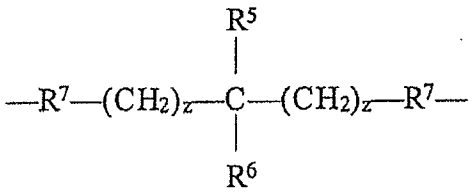
where

R^1, R^2, R^3 and Z possess the definition specified in claim 1, and

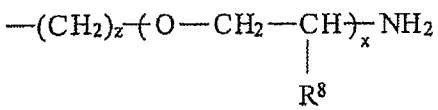
R4 is C1-C6 alkylidene.

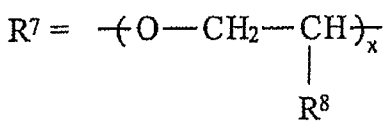
4. A method for producing an azetidine derivative of any one of claims 1 to 3, characterized in that a polyamine of the formula NH_2-Z'-NH_2 is reacted with an α,β-unsaturated aldehyde of the formula R^1R^2-C=CR^3CHO or with an α,β-unsaturated ketone of the formula R^1R^2C=CR^3-COR^4 in the temperature range from 20 to 150°C, where Z' is

C_2-C_{25} alkylidene, C_5-C_{25} cycloalkylidene, C_6-C_{24} arylene, and



R^5 and R^6 = H, CH_2OH, C_1-C_4 alkyl, C_6H_5,





R^8 = H, CH_3, C_2H_5, C_6H_5
z = 0 or 1
x = 0 to 100
and R^1, R^2, R^3, and R^4 possess the above definition.

5. The method of claim 4, characterized in that the reaction is carried out in the presence of an organic solvent, especially toluene.

6. The use of an azetidine derivative of any one of claims 1 to 3 as a latent curing component for resins having functional groups which are reactive toward amino groups.

7. The use of claim 6, characterized in that the azetidine derivative of the formula (I) and/or (II) and/or (III) is mixed with the resin to be cured, the azetidine ring is hydrolytically opened by moisture exposure, and the secondary amine formed is caused to react with the reactive functional groups of the resin to be cured.

8. The use of either of claims 6 and 7, characterized in that polyurethanes or polyepoxides and also mixtures thereof are used as resin to be cured.

9. The use of any one of claims 6 to 8, characterized in that the curing component is used an amount of 0.01% to 150% by weight, in particular 0.1% to 20%

by weight, based on the amount of the resin to be cured.

10. The use of any one of claims 6 to 9, characterized in that the mixture consisting of curing component and resin is cured at a temperature of 5 to 80°C and optionally in the presence of a suitable catalyst.

11. The use of any one of claims 6 to 10, characterized in that the curing component is used in the production of (floor) coatings, sealants, and adhesives.